

MOFS

Mobile Oxygen filling station

Description

The MOFS unit is an oxygen generating & filling system built into an ISO transportable container. Oxygen is produced from compressed air by pressure swing adsorption. All components to include the compressed air supply, generator, high pressure compressor (booster) and cylinder filling ramp are integrated into the container.



Standard Features

- ✓ Transportable (ISO standard bolt on corners and fork lift points)
- ✓ Turnkey, plug & play solution
- ✓ Designed for outdoors - the container provides excellent protection against wind, rain and sun.
- ✓ Automatic start and stop operation
- ✓ Available oxygen outlet from 4 - 8 barG; Oxygen cylinders are filled at 150barG to 200barG
- ✓ Oxygen purity from 93% to 95%

Optional add-ons

- ✓ Sequential start/stop system – one button operation
- ✓ Surveillance system – monitors the oxygen concentration of the ambient air in the container
- ✓ CSC approval – certification for sea transport
- ✓ SIBIRIA – nordic version for temperatures down to -50°C
- ✓ Automatic fire detection system
- ✓ Audio/visual alarm



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Model	Filling capacity	Cylinders filled *	End pressure	Power	Container size	Dimensions	Weight
	m ³ /h	in 24h	bar	kW	ft	m	kg
MOFS4	3.4	13.6	152	7	9	2.9x2.2x2.3	2100
MOFS8	6.8	27.2	152	12	20	6.1x2.5x2.6	4300
MOFS18	19	76	172	25	20	6.1x2.5x2.6	5300
MOFS21	21	84	207	38	20 (HC)	6.1x2.5x2.9	6000
MOFS32	34.9	139	172	46	40 (HC)	12x2.5x2.9	9200

* 6m³ volume cylinder considered.
Other options available on request.

Operating conditions

Purity	93% or 95%
Ambient temperature range	-20°C to 55°C
Oxygen outlet pressure	152 to 207 barG
Oxygen pressure dew point	-50°C
Air inlet pressure	7.5barG
Pressure dew point	3°C
Inlet air quality	ISO: 8573.1:2010 class 1.4.1
Filtration grade	0.01 micron
Power supply	400-440 V / 50-60 Hz

The Process

Pre-treated compressed air enters the active column of the oxygen generator and flows up through the Zeolite (molecular sieve). Nitrogen and other gases are adsorbed whilst the oxygen passes through. When the pressure is released the Zeolite completely regenerates and vents the captured Nitrogen. Purified oxygen is then boosted to a high pressure, using an oil free compressor, and then filled into cylinders via the filling ramp.